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ABSTRACT

The nation-wide study assessed the effectiveness of the various delivery systems providing early intervention services to handicapped young children. The Battelle Developmental Inventory was the primary measure of child development. A series of parent measures were used and demographic information was also collected. Data from project sites including approximately 580 parents were analyzed, examining the: (1) impact of family adaptation style or coping style; (2) stress with the consideration of sources of support and resources available; and (3) other stressful life events that these families had experienced. Results indicated that families from low socio-economic status groups tended to be very disengaged in terms of their coping skills, while families from higher income groups tended to be enmeshed or very close-knit families. Furthermore, these low income families had fewer sources and resources for support available to them. An analysis of covariance indicated that significant differences remained between groups based on the cohesion-type from the Family Adaptability and Cohesion Evaluation Scales after accounting for differences in family resources, family sources of support, and other critical life events faced by the families involved. (Author/DB)

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Family Type, Sources of Support, and Stress Among Families of Preschool Children

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Running Head: Family Type and Stress

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Family Type, Sources of Support, and Changes in Stress Among Families of Preschool Children

ABSTRACT

This nation-wide study was conducted under the auspices of the Early Intervention Research Institute's (EIRI) contract to assess the effectiveness of various early intervention program delivery systems. Data were collected on both children and families, with the mother typically responding to the family data forms. The Battelle Developmental Inventory was the primary measure of child development, and a series of parent measures were used, including: the Parenting Stress Index (PSI), the Family Adaptability and Cohesion Evaluation Scales (FACES), the Family Inventory of Life Events and Changes (FILEC), the Family Resource Scale (FRS), and the Family Support Scale (FSS). In addition, demographic information was collected utilizing a measure designed by the EIRI staff.

For the purposes of this study, data across all current project sites including approximately 580 parents was analyzed, examining the: 1) impact of family adaptation style or coping style, 2) stress with the consideration of sources of support and resources available, and 3) other stressful life events that these families had experienced. Results indicated that families from low socio-economic status groups tended to be very disengaged in terms of their coping skills, while families from higher income groups tended to be enmeshed or very close-knit families as defined by Olson & McCubbin, 1986. Furthermore, these low income families had fewer sources and resources for support available to them. An analysis of Covariance indicated that significant differences remained between groups based on the cohesion-type from the FACES after accounting for differences in family resources, family sources of support, and other critical life events faced by the families involved.

Family Type, Sources of Support, and Stress
Among Families of Preschool Children

The impact on the family of having a child who is handicapped has generated increasing attention in the past several years (Dunst, 1985; Turnbull, Summers, & Brotherson, 1983). Studies have investigated factors that compound stress levels as well as those that ameliorate them, and a number of scales have been developed that purport to measure levels of stress (e.g. Abidin, 1983; McLinden-Mott & Braeger, 1988). Among factors reported to impact on perceived levels of stress are family type (Olson & McCubbin, 1983) and the sources and amount of support available (Dunst, Trivette, & Cross, 1986). No clear relationship between family demographic characteristics and stress have been reported, although Farber (1959) suggested that low SES families were less likely to institutionalize a child than high SES families. Crnic, Friedrich, and Greenberg (1983) noted that few studies have been conducted that address family adaptation over time or that include data on such factors as child age, severity of handicap, physical health, or family outcome. Data on all of these factors are being collected in the present investigation.

Using data on over 500 families participating in the longitudinal studies being conducted at the Early Intervention Research Institute at Utah State University, we investigated the relationships between family type, stress, and family demographics and sources of support. The instruments included in this analysis were the Parenting Stress Index (PSI), (Abidin, 1983); the Family Adaptability and Cohesion Evaluation Scales (FACES), (Olson, Portner, and Lavee, 1985); the Family Support Scale (FSS), (Dunst, Jenkins, and Trivette, 1984); the Family Resource Scale (FRS), (Dunst and Leet, 1985); the Family Inventory of Life Events and Changes (FILE), (McCubbin, Patterson, and Wilson 1983); and a family demographic survey developed at EIRI.

Method

Data were collected on the above measures at pre- and posttest sessions for all children and families involved in the longitudinal investigations being conducted by EIRI. The time between testing sessions ranged from three to twelve months. Data from the PSI were correlated with the FACES adaptability and cohesion subscales, demographic data, the FSS scales, and the FRS scales. Categorical data from the two FACES subscales were included as independent variables in a set of ANCOVAs, with demographic data, FSS, and FRS subscales as covariates. Regression analyses were conducted with demographic, and support and stress variables (with stress as the dependent variable) to determine which variables to include as covariates in the ANCOVAs.

Results

Initial analysis indicated that with respect to stress, the cohesion subscale of the FACES was associated with stress as measured by the PSI, but there was no relationship between adaptability and stress. Demographic and support measures also differed based on levels of family cohesion but not adaptability, as measured by the FACES.

Demographic data, family type, and stress. The only demographic variable found to correlate above .20 with the FACES adaptability subscales at pretest was income ($r = .22$, $p < .001$, $N = 556$), while both income and receipt of public assistance correlated with the cohesion subscale (Table 1). Because only one of the seven family support subscales correlated with the adaptability subscale, further analyses of this subscale were not conducted. Six of the seven support subscales correlated with the cohesion subscale.

Table 1

FACES Cohesion Type

Demographic Variable	Disengaged (N = 123)	Separated (N = 173)	Connected (N = 191)	Enmeshed (N = 89)
% Caucasian***	72.1	79.3	88.1	90.9
% Mothers Married***	56.8	65.5	83.3	85.6
% Mothers in Technical/ Managerial Positions**	5.8	12.4	16.7	22.1
% Fathers in Technical/ Managerial Positions*	24.2	30.5	42.4	38.5
Income***	18,528 (17,087)	22,860 (17,206)	28.650 (20,907)	29,952 (19,256)
Mother's Education***	12.13 (2.4)	12.63 (2.1)	13.35 (2.3)	13.13 (2.7)
Father's Education***	12.2 (2.5)	13.2 (2.2)	13.7 (2.4)	13.6 (2.5)

* $p < .05$

** $p < .01$

*** $p < .001$

Correlations between the PSI scales and FACES measures are presented in Table 2. The cohesion subscale was converted to a categorical variable according to criteria established by Olson et al., 1985. To determine whether there were demographic differences between cohesion groups, an ANOVA was run with cohesion as the independent variable and demographic variables as dependent. Significant group differences were found among cohesion groups. The four cohesion categories are "disengaged," "separated," "connected," and "enmeshed." These analyses indicated that there were significant differences in the percentage of families with both parents in the home, parental

education and occupation, income, and percent of families receiving public assistance. In each case, a direct linear relationship was found. More cohesive families were more likely to have both parents in the home, higher education and income, and fewer cases receiving public assistance.

Table 2

Parenting Stress Index

N = 607	Total	Child	Other
FACES Cohesion	-.27**	-.16	-.29***
Adaptation	-.05	-.02	-.04
Cohesion Distance from Ideal	-.13*	-.06	-.14**
Adaptation Distance from Ideal	.13**	.12*	.11*
Total Distance from Ideal	-.02	.03	-.04

* $p < .05$

** $p < .01$

*** $p < .001$

The only demographic variable that correlated above .20 with stress was income, which correlated -.23 and -.21 ($p < .001$ in each case) with PSI total stress and PSI stress on the parent (as opposed to child related stress). Thus higher income mothers reported less stress than mothers in lower income families.

As in the case of demographics, correlation and categorical data across the adaptability and cohesion subscales of the FACES and the PSI data indicated that only the cohesion scale was related to levels of stress. As can be seen in Tables 3 and 4, more cohesive families reported less stress. The regression analyses indicated that the mother's total score on the FSS should be used as a covariate on all PSI scales, and that time availability (FRS) should be included on the total stress and parent related stress PSI scales, and total resources (FRS) should be included on the child related stress scale. Although none of the demographic variables were found to be relevant based on the regression analyses, income was included because, of the demographic variables, it most highly correlated with stress, and significant income differences were found based on cohesion type.

Statistically significant differences remained between cohesion types on the support variables (Table 3) and on the total and parent related stress scales (Table 4), after adjustment for the covariates. Approximately 17% of the variance in stress was accounted for by the covariates. Differences on the total PSI indicate that groups 3 and 4 (connected and enmeshed) were less stressed than groups 1 and 2 (chaotic and separated). The adjusted means for

groups 1 and 2 are in the high stress range (> 80th percentile), while the averages for groups 3 and 4 are in the normal range. In the parent related stress domain, adjusted means are all in the normal range, but the linear relationship is still evident. Groups 1 and 2 are both above the 65th percentile, while groups 3 and 4 are in the 55th percentile. Adjusted means in the child related stress domain place all four groups in the high stress category, and the linear relationship is not evident, although groups 3 and 4 are slightly less stressed than groups 1 and 2.

Table 3

FACES Cohesion Type

Support Variable	Disengaged			Separated			Connected			Enmeshed			F
	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	
Family Support Score--Total	24.8*	10.5	125	29.0	10.8	179	30.9	11.3	198	31.4	12.4	90	10.89***
FSS--# of Sources	15.2	3.4	125	15.2	3.3	179	15.0	3.2	197	14.3	3.0	90	1.56
Family Resource Scale--Total	105.3*	21.3	123	117.3*	18.1	174	122.4*	18.3	183	125.2	15.7	83	26.34***
FRS--General	68.0*	14.1	125	75.5*	13.0	178	79.8*	12.3	197	80.5	11.0	90	25.89***
FRS--Time Availability	34.5*	9.3	125	39.8*	9.8	179	42.0*	10.0	198	43.4	9.0	90	19.81***
FRS--Physical Resources	28.4*	5.9	125	30.8*	4.3	179	32.0*	3.8	197	32.1	3.8	90	19.77***
FRS--External Support	28.4*	5.9	122	23.9*	4.1		24.8*	4.4	198	25.1	4.2	89	18.77***
FILE	12.8*	8.8	124	70.8*	6.6	176	9.6*	5.4	195	9.7	6.0	89	6.61***

* Significant difference in groups from left to right

*** $p < .001$

Table 4

FACES Cohesion Type

PSI Stress		Disengaged (N = 123)			Separated (N = 173)			Connected (N = 191)			Enmeshed (N = 89)			F	P
		$\bar{X}$	SD	Adj. $\bar{X}$	$\bar{X}$	SD	Adj. $\bar{X}$	$\bar{X}$	SD	Adj. $\bar{X}$	$\bar{X}$	SD	Adj. $\bar{X}$		
Total	Covariates FRSC FSSAM FILEA	257	40	245	247	35	246	234	41	240	223	42	231	3.79	.010
Child Related	Covariates FRSC FSSAM FILEA	118	20	114	116	19	115	112	21	114	108	23	111	1.00	.394
Other Related	Covariates FRSC FSSAM FILEA	139	26	132	132	23	131	122	24	126	116	27	121	4.54	.004

The findings reported here regarding family type differ from those reported by Olson and McCubbin (1983) with respect to families with young children in that as cohesion increased, families exhibited less stress and reported greater satisfaction with support and more resources. Olson and McCubbin, in contrast, found that families in either extreme scored high on measures of satisfaction and family support. Differences in stress levels for these families were not reported by Olson and McCubbin. They also reported that families differed on these variables based on FACES adaptability scores.

It is intuitively logical that more cohesive families should be less stressed and that these families should report more satisfaction with the sources of support available to them. The demographic differences also follow, in that income, marital status, and public assistance are known to be related. Families with higher incomes would tend to have two parents and to rely on public assistance less often. Two parent families would also seem to be more cohesive and less stressed, in that there is someone to help with problems and to share concerns with. Data reported here suggest that family cohesion is an important factor that can reduce stress levels associated with having a child with handicaps.

The association of time availability with parental stress is an indication handicapped children demand more time and attention than non-handicapped children. The fact that differences in PSI scores in the child domain were not statistically significant but all groups fell in the high stress range supports this conclusion. Additionally, the averages for all groups fell in the upper ranges of stress, indicating that this group of parents is more stressed than standardization sample of parents used by Abidin (1983). The statistically significant difference in the parent domain may indicate that parents in more cohesive families are better able to separate child-related stress from other sources of stress.

Preliminary analyses of posttest data suggest that the relationships discussed above are becoming stronger over time, as correlations between family cohesion and stress have increased to -.34 (total stress), -.28 (child related stress), and -.34 (other stressors), using postest measures of both cohesion and stress. Pretest FACES data correlated -.29 with total stress, -.21 with child related stress, and -.31 with other sources of stress. A trend toward reduced stress was also evident among families that reported more cohesiveness at posttest than at pretest (-0.25 versus -5.85 change in PSI total from pretest to posttest (i.e. slightly less stress was reported at posttest by families that reported more cohesiveness at posttest).

Areas warranting additional investigation with respect to family type and stress are severity of child's handicap, type of handicap, and health problems. As the study progresses, child age may become increasingly important. Changes in family type, stress, and other variables will continue to be assessed as longer term posttesting occurs. Olson and McCubbin (1983) hypothesized that families would change in type in response to varying sources of stress across the family life cycle. The longitudinal nature of the present investigation provides an opportunity to test this hypothesis. Changes stress level associated with changes in family type are likely to be interesting. Finally, associations between level of parental involvement, stress, and family type will be of interest.

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